BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

In the Matter of	)	
	)	
PUBLIC UTILITIES COMMISSION	)	Docket No. 2008-0274
	)	
Instituting a Proceeding to Investigate Implementing a Decoupling Mechanism for Hawaiian Electric Company, Inc., and Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited.	)	

HAIKU DESIGN AND ANALYSIS

RESPONSES TO POST-HEARING INFORMATION REQUESTS

TRANSMITTED BY THE COMMISSION ON JULY 15, 2009

Carl Freedman, dba Haiku Design and Analysis (HDA) respectfully offers the following responses to the Post-Hearing Information Requests "IRs for All Parties" transmitted by the Commission in this docket on July 15, 2009.

The information requests for all parties are numbered 7. through 14. To avoid confusion with previous Commission IR's with these numbers HDA is continuing the numbering system used by HECO in its responses, numbering these information requests as PUC-IR-56 through 63.

PUC-IR-56 [July 15, 2009 IR #7.]

Please discus the success and failures of decoupling in other jurisdictions (e.g., Maine).

HDA Response:

Several jurisdictions have implemented decoupling and several jurisdictions have terminated decoupling for various reasons. The primary reason for implementing decoupling in other jurisdictions has been to remove disincentives for utilities to embrace energy efficiency programs that would otherwise tend to reduce utility revenues. It is generally agreed that decoupling mechanisms have been effective at delinking utility earnings from sales volumes. It has been argued that decoupling has been successful in enabling or promoting energy efficiency implementation but this is difficult to determine definitely. Decoupling has been terminated in several jurisdictions for several reasons. In California and New York decoupling was discontinued because of changes in utility industry structuring (implementation of retail competition). In the State of Washington a trial decoupling mechanism was discontinued because the specific mechanism was not compatible with its conjoined energy cost adjustment features and was problematic in the context of wholesale power markets. In Maine a decoupling mechanism was terminated when it was relied upon, in lieu of a rate case, to address sales decreases resulting from a recession and upward decoupling rate adjustments became large and publicly unpopular.

Decoupling in other jurisdictions was implemented in the particular contexts of the specific regulatory frameworks and utility characteristics of each jurisdiction. It is difficult to make direct and relevant comparisons to present Hawaii objectives and circumstances.

The experience in Maine is perhaps most relevant to Hawaii circumstances. The basic lesson from that jurisdiction is that public perception matters. The Maine decoupling mechanism, in the course of a recession, did not increase rates beyond those that would have resulted from a rate case... but as a focus of the cause for increased rates decoupling became unpopular and was terminated. In Maine, as in other jurisdictions that adopted decoupling, the principal reason for implementing decoupling was to remove utility disincentives to promote energy efficiency. Insulation of the utility revenue stream from weather and business cycles and associated reductions in utility financial risk were perceived as secondary effects, not as objectives. Deliberate application of the mechanism to avoid a rate case was a later objective presented by developing circumstances. In Hawaii, decoupling is now being considered from the onset with the objectives of insulating the utility revenue stream from business cycles and reducing the need for adjudicating rate cases. Despite the fact that these are recognized objectives by the Commission and the parties in the instant docket, it is not clear that the response of the Hawaii general public will be different than the Maine general public if decoupling rate adjustments become large and upward.[1]

[1] Although decoupling adjustments (excluding the proposed RAM adjustments) are generally revenue neutral (equally likely to be upward or downward adjustments), two factors would ensure that HECO's initial decoupling adjustments would be upward and substantial. First, since actual utility sales in 2009 are lower than the updated 2009 test year sales projections used to denominate rates in HECO's current rate case, initial decoupling adjustments would be upward. Second, because the proposed Hawaii decoupling mechanisms include features to reduce or eliminate regulatory lag and enhance the utility revenue stream, the mechanisms are not revenue neutral. The proposed mechanisms would result in consistently upward adjustments to rates.

PUC-IR-57 [July 15, 2009 IR #8.]

Please discuss the pros and cons of implementing the revenue enhancements discussed at each 3a, b, c, and d of the Commission's post-hearing IRs.

HDA Response:

REGARDING MAGNITUDE:

The magnitude of each of the revenue enhancements is a major determinant of the associated pros and cons. One objective of the revenue enhancements, generally, is to provide increased revenues between rate cases in order to enable a utility to achieve targeted earnings with less frequent rate cases. A primary determinant of the effectiveness of each revenue enhancement approach regarding this objective is the magnitude of the revenue enhancement provided. The ability of the revenue enhancements to provide targeted earnings between rate cases has been the focus of extensive examination in response to PUC-IR-14 and PUC-IR-52 in this proceeding.

The principal "pros" associated with increased magnitude of revenue enhancement include (1) reduced regulatory burdens associated with adjudication of frequent rate cases and (2) a higher likelihood that the utility will be able to achieve target earnings levels. The principal "cons" of increased magnitude of revenue enhancement are (1) increased potential public opposition to the upward adjustments to utility rates, (2) increased probability that the utility will exceed targeted earnings and (3) reduced incentives for the utility to control expenses. The degree to which these pros and cons exist for each of the revenue enhancements 3a, b, c and d is proportional to the magnitude of the revenue enhancements.

The magnitude of each of the revenue enhancements is shown in HECO's response to PUC-IR-52, although HDA offers some comments below regarding HECO's comparisons.

It was not clear to HDA whether the revenue enhancement described and proposed in PUC-IR-52, part 3a (system reliability net additions) was primarily intended to reduce the scope of capital projects included in the RAM mechanism compared to the RAM proposed by HECO and the Consumer Advocate or whether it was primarily intended to propose an alternate method of accounting and crediting capital expenditures to the RAM mechanism (quarterly booking of authorized net plant actually placed in service). In other words, was the specification of accounts related to (3a) system reliability intended to reduce the scope of expenditures included in the RAM compared to the RAM proposed by HECO and the Consumer Advocate? HECO's response to PUC-IR-52 presumes a broad scope of expenditures within the definition of (3a) system reliability, including generation plant and any projects necessary to provide reliable service. According to HECO's tabulation in response to PUC-IR-52, the RAM revenues from approach 3a exceed the revenues of the RAM proposed by HECO and the Consumer Advocate (with and without RPC with reset) in all cases. It is not clear whether HECO's treatment of approach 3a significantly limits the scope of included projects compared to the HECO/CA RAM approach. The larger magnitude of the 3a RAM revenues would appear to indicate that the scope of included projects is not appreciably limited but the larger magnitude could also result from other differences HECO's analytical approach in response to PUC-IR-52. For example:

- It appears that revenue requirements associated with CT-1 are included in HECO's tally of 3a RAM revenues but are not included in the tally of HECO/CA RAM revenues.
- It appears that the 3a RAM revenues are based on plant additions (adjusted only for depreciation on plant additions)[2] whereas the HECO/CA RAM revenues are based on changes in net ratebase (adjusted for depreciation on all ratebase).

Either or both of these factors (if HDA is, in fact, interpreting HECO's analysis properly) would serve to significantly increase the projections of RAM revenues for the 3a approach in comparison to the characterization of the HECO/CA approach. In this respect the comparison does not appear to be "apples to apples".

The component 3b (net plant additions associated with customer additions) is a much smaller component of net plant additions. The second bullet point noted above, regarding the treatment of depreciation in HECO's characterization of RAM revenues, also applies to the 3b component.

The component 3c (O&M associated with Act 155 implementation), as characterized by HECO is also a much smaller component of expenses than 3a or the HECO/CA proposed RAM. This approach appears to attempt to limit the scope of RAM O&M revenues to efforts associated with implementation of renewable generation projects.

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[2] See HECO response to PUC-IR-52, Attachment 3, pages 3 to 7. The adjustments for depreciation are shown in column B on each page. These adjustments are for depreciation of prior year plant additions only. The depreciation adjustments (1) are not accumulated and (2) do not include adjustment for the much larger component of depreciation of outstanding rate base.

REGARDING ACCOUNTABILITY AND ADMINISTERABILITY

The accountability and the required administrative overhead (by both the utility and the regulatory agencies) are both important considerations for each of the proposed revenue enhancement approaches. It is not clear that the existing utility accounts are organized to facilitate a concise, accountable implementation of the 3a, b and c approaches without substantial revision. Unless the definitions of what types of projects and expenses are to be included and excluded from each RAM component are very clear and not subject to dispute, application of these approaches in an automatic adjustment clause (such as the proposed RAM's) could become contentious and burdensome.

The 3c component may be particularly problematic in this regard. One problem with this approach is the difficulty of clearly identifying what expenses should be included in this category. This categorization may be too ambiguous to be an accountable and administrable regulatory tool.

HDA notes that the cost recovery timing aspect of approaches 3a, 3b and 3c (quarterly postings of expenditures actually incurred and for plant actually placed in service) would reduce regulatory lag even further than the HECO/CA proposal and would address concerns expressed during the panel hearings regarding potential recovery of costs for plant not yet in service.

REGARDING UTILITY INCENTIVES TO CONTROL COSTS

One important distinction between the 3c approach and the 3d approach is the degree to which they encourage the utility to control expenditures. In approach 3c the utility would

book actual expenditures to the RAM for recovery (for the Act 155 related portion of O&M expenses). In approach 3d (the O&M component of the HECO/CA RAM), the RAM would provide a stream of escalating revenues (rather than actual expenditures). In approach 3d utility earnings would be sensitive to the actual level of utility expenditure. Generally, the approaches that post actual expenditures to be recovered in the RAM revenues are arguably more accurate and provide more certain cost recovery but also eliminate the primary (and perhaps sole) existing regulatory incentive for the utility to control costs.

REGARDING THE DEGREE OF SCRUTINY

The 3a, b and c approaches and the application of an RPC approach in conjunction with these approaches are exploratory conceptual proposals that have not been characterized in the same level of detail or subject to the same level of review, analysis, discovery and scrutiny as the HECO/CA proposal and the HDA RPC proposal. HDA does not question (and, in fact, welcomes) the consideration of additional approaches to developing an effective set of regulatory mechanisms to address recovery of costs between rate cases. Nevertheless, it should be recognized that the more recent proposals are substantially less developed in level of detail and remain ambiguous in several respects compared to the proposals made earlier in the schedule of proceedings in this docket. HDA is not certain, for example, whether approaches 3a, b and c and how an RPC mechanism would be applied in conjunction with these approaches has been interpreted and characterized by HECO in its IR responses consistent with what was intended by NRRI and/or the Commission in its IR's. HECO was given a challenging task in responding to the most recent IR's and, of

necessity, needed to make many assumptions in interpreting and framing each of the approaches. Exactly what was assumed in HECO's characterization and how these approaches would actually work has not been clearly laid out or examined in detail.

PUC-IR-58 [July 15, 2009 IR #9.]

Should the RAM concepts described at 3a and b be based on gross or net plant additions?

HDA Response:

These RAM concepts should be based on changes in net plant (accounting for depreciated plant and changes in annual depreciation expense) rather than changes in gross plant or unadjusted plant additions.

PUC-IR-59 [July 15, 2009 IR #10.]

Please propose allocation methods among customer classes for each 3a, b, c and d and explain the basis for the allocation.

HDA Response:

HDA does not have proposed allocation methods for the 3a, b, c or d approaches.

PUC-IR-60 [July 15, 2009 IR #11.]

What should the Commission consider in selecting an ROE to use in calculating revenue enhancements between rate cases associated with rate base changes. Why should the ROE used in calculating the inter-rate case revenue adjustments based on rate base changes be equal to the ROE authorized in the rate case (per the proposed RAM), as the inter-rate case ROE appears to be guaranteed and the rate case ROE is an opportunity to earn the authorized return? Please discuss and quantify.

HDA Response:

The various proposed RAM schemes, to a greater or lesser extent, do appear to "guarantee" recovery of inter-rate-case authorized revenues. This would provide a substantial reduction in financial risk to the utility that should be reflected in an appropriately reduced ROE assumed in determining authorized revenues.

It does not appear, however, that inter-rate-case ROE is fully guaranteed since this would depend on the ability of the utility to control its expenses.

HDA suggests that, rather than apply a separate ROE for determining authorized inter-rate-case revenues, the overall reduction in utility financial risk should be considered in determining an appropriate (reduced) ROE in determining overall authorized revenues in the context of the rate case.

PUC-IR-61 [July 15, 2009 IR #12.]

Please discuss the pros and cons of the Commission approving a RAM that consists of 3a, b and c with and without an RPC compared to the RAM proposed by HECO.

HDA Response:

As discussed in response to PUC-IR-7, it was not clear to HDA whether the revenue enhancement described and proposed in PUC-IR-52, part 3a (system reliability net additions) was primarily intended to reduce the scope of capital projects included in the RAM mechanism compared to the RAM proposed by HECO and the Consumer Advocate. HECO's response to PUC-IR-52 presumes a broad scope of expenditures within the definition of (3a) system reliability such that the RAM including this component alone provides revenues that exceed the revenues of the RAM proposed by HECO and the Consumer Advocate (with and without RPC with reset) in all cases. Therefore the approach that includes components 3a, b and c (with or without RPC adjustment), as characterized by HECO, produces revenues well in excess of what is proposed in the HECO/CA RAM.

It was argued by HDA at the panel hearings (extemporaneously under questioning) that an RPC approach would be compatible with the HECO/CA RAM O&M component but not the HECO/RAM ratebase component. The argument goes as follows: The RPC approach proposed by HDA is an index that approximates fixed cost revenue growth associated with growth of the utility system between rate cases. The HECO/CA RAM O&M component is an index based on general inflation. O&M expenses between rate

cases, in principal, would be expected to grow as a function of both inflation and growth in system size. These are not redundant factors in principal.[3]

HDA argued that the RPC approach would not be consistent with the HECO/CA RAM ratebase component because this would be a redundant indexing of utility system growth. Since the 3a component (at least as characterized by HECO in its IR responses) includes the costs associated with utility system growth and the 3b component is directly associated with the costs of system growth, an RPC index would be redundant and not appropriate in conjunction with these components.

[3] Although these factors are complimentary in principal, they ignore other factors that could affect an approximation of a reasonable revenue stream such as expected improvements in productivity.

PUC-IR-62 [July 15, 2009 IR #13.]

Please discuss the pros and cons of an ECAC in which (a) the utility bears the risk for heat rate changes within a performance band (e.g., plus/minus 50 Btu from the target) while (b) all changes in costs associated with heat rate changes outside the performance band are passed through to customers.

HDA Response:

HDA notes that the scheme suggested in this information request is the inverse of what has been proposed by HECO and the Consumer Advocate in this proceeding (which would provide a direct pass through of fuel costs within the performance deadband and maintain the existing incentive on excursions from the performance deadband). HDA does not intend to recommend either performance deadband approach in its briefs.

There are several factors that affect the utility system heat rate. The general objective of the proposed schemes is to provide incentives that will (a) encourage the utility to perform desirably according to some factors that *increase* system efficiency (maintaining the condition of generation units, optimizing generation unit maintenance scheduling, optimizing unit commitment, optimizing economic dispatch), (b) encourage the utility to perform desirably according to some factors that *decrease* system efficiency (provision of spinning and regulating reserve for reliability purposes, provision of regulating reserve to accommodate as available generation, operating the system out of thermodynamic optimization to maximize renewable generation) and (c) "forgive" the utility regarding the effects of some factors that affect system efficiency that are not in the utility's direct control (effects of system demand profiles and sales volume, performance of independent power

producers). A performance deadband approach (regardless of whether it is structured "outside in" or "inside out") is too simplistic to effectively differentiate between multiple performance factors using a single index that in some cases is to be minimized, in some cases maximized and in some cases ignored.

One con regarding either performance deadband approach is some necessary added regulatory complexity. This is certainly not preclusive but is a substantial consideration in comparison to what otherwise (with a simple straight pass through) would be a substantial simplification of the entire monthly, quarterly and annual ECAC process and the RBA decoupling process.

PUC-IR-63 [July 15, 2009 IR #14.]

Please discuss the pros and cons of an ECAC that remained the same as the current ECAC but removed the Btus used for spinning reserve from the heat rate calculation.

HDA Response:

HDA concurs with HECO's assertion in its response to PUC-IR-53 that it is not practical to isolate the Btu's attributable to providing spinning or regulating reserve from total fuel consumption. If it were practical to clearly differentiate the multiple components of fuel consumption and system operation efficiency, there would be merit in separating these components for purposes of providing specific incentives. Unfortunately this is not practical.

CERTIFICATE OF SERVICE

I hereby certify that I have, on August 22, 2009 served a copy of the foregoing HAIKU DESIGN AND ANALYSIS RESPONSES TO POST-HEARING INFORMATION REQUESTS TRANSMITTED BY THE COMMISSION ON JULY 15, 2009 upon the following entities, by first class mail or by electronic transmission as noted:

Catherine P. Awakuni, Executive Director Department of Commerce and Consumer Affairs Division of Consumer Advocacy P.O. Box 541 Honolulu, Hawaii 96809	[2 copies] [First Class Mail] and [Electronic Service]
Darcy L. Endo-Omoto, Vice President Government and Community Affairs Hawaiian Electric Company, Inc. P. O. Box 2750 Honolulu, HI 96840-0001	[Electronic Service]
Dean K. Matsuura Manager, Regulatory Affairs Hawaiian Electric Company, Inc. Hawaii Electric Light Company, Inc. Maui Electric Company, Ltd. P. O. Box 2750 Honolulu, Hawaii 96840-0001	[Electronic Service]
Jay Ignacio, President Hawaii Electric Light Company, Inc. P. O. Box 1027 Hilo, Hawaii 96721-1027	[Electronic Service]
Edward L. Reinhardt, President Maui Electric Company, Limited P. O. Box 398 Kahului, Hawaii 96733-6898	[Electronic Service]
Thomas W. Williams, Jr., Esq. Peter K. Kikuta, Esq Damon Schmidt, Esq Goodsill Anderson Quinn Stifel LLLC 1099 Alakea Street, Suite 1800 Honolulu, Hawaii 96813	[Electronic Service]

Randall J. Hee, P.E., President and CEO [Electronic Service]
Kauai Island Utility Cooperative
4463 Pahe'e Street, Suite 1
Lihue, Hawaii 96766-2000

Timothy Blume [Electronic Service]
Michael Yamane
Kauai Island Utility Cooperative
4463 Pahe'e Street, Suite 1
Lihue, Hawaii 96766-2000

Kent T. Morihara, Esq. [Electronic Service]
Kris N. Nakagawa, Esq.
Rhonda L. Ching, Esq.
Morihara Lau & Fong LLP
841 Bishop Street, Suite 400
Honolulu, Hawaii 96813

Estrella Seese [Electronic Service]
Department of Business, Economic Development and Tourism
State Office Tower
235 South Beretania Street, Room 501
Honolulu, Hawaii 96813

Warren S. Bollmeier II, President [Electronic Service]
Hawaii Renewable Energy Alliance
46-040 Konane Place 3816
Kaneohe, Hawaii 96744

Gerald A. Sumida, Esq. [Electronic Service]
Tim Lui-Kwan, Esq.
Nathan C. Smith, Esq.
Carlsmith Ball LLP
ASB Tower, Suite 2200
1001 Bishop Street
Honolulu, Hawaii 96813

Mike Gresham [Electronic Service]
Hawaii Holdings, LLC, dba First Wind Hawaii
33 Lono Avenue, Suite 380
Kahului, Hawaii 96732

Deborah Day Emerson, Esq. [Electronic Service]
Gregg J. Kinkley
Deputy Attorney General
Department of the Attorney General
State of Hawaii
425 Queen Street
Honolulu, Hawaii 96813

Mark Duda, President [Electronic Service]
Hawaii Solar Energy Association
P. O. Box 37070
Honolulu, Hawaii 96837

Douglas A. Codiga, Esq. [Electronic Service]
Schlack Ito Lockwood Piper & Elkind
Topa Financial Center
745 Fort Street Mall, Suite 1500
Honolulu, Hawaii 96813

Theodore Peck [Electronic Service]
Department of Business, Economic Development and Tourism
State Office Tower
235 South Beretania Street, Room 501
Honolulu, Hawaii 96813

Dated: August 22, 2009; Haiku, Hawaii

Signed: CARL FREEDMAN
Carl Freedman